




Iron Landing

AREA STRUCTURE PLAN

TOWN OF CROSSFIELD



Bylaw No. 2011-11
21 June 2011



LONGVIEW
 Planning + Design

LEE MAHER
 ENGINEERING ASSOCIATES LTD.

TOWN OF CROSSFIELD

BYLAW NO. 2011-11

Being a bylaw of the Town of Crossfield to adopt an Area Structure Plan pursuant to Section 633 of the Municipal Government Act.

WHEREAS the Council of the Town of Crossfield wishes to adopt the Area Structure Plan affecting the lands described as:

Ptn. NE 35-28-01 W5M (+/- 98.62 Acres/ +/- 39.91 Hectares.)

herein referred to as the "Lands" and described in Schedule "A", known also as the Iron Landing Area Structure Plan, attached hereto and forming part of this bylaw; and

WHEREAS a notice was published June 14, 2011 and on June 21, 2011 in the Rocky View Weekly advising of the Public Hearing for June 21, 2011.

WHEREAS Council held a Public Hearing and having given consideration to the representations made to it in accordance with Section 692 of the Municipal Government Act, being Chapter 24 of the Revised Statutes of Alberta, 2000, and all amendments thereto.

NOW THEREFORE the Council enacts as follows:

1. That the Area Structure Plan be adopted to provide a framework for subsequent subdivision and development within:

Ptn. NE 35-28-01 W5M (+/- 98.62 Acres/ +/- 39.91 Hectares.)

as shown as being within the Area Structure Plan boundary in Figure "1.0" of Schedule "A" of this bylaw.

herein referred to as the "Lands" and described in Schedule "A", known as the Iron Landing Area Structure Plan, attached hereto and forming part of this bylaw.

2. That this Bylaw shall come into effect upon the third and final reading.

First reading passed in open Council, assembled in the Town of Crossfield, the Province of Alberta, this 7th day of June, 2011, on a motion by Mayor Anderson.

Second reading passed in open Council, assembled in the Town of Crossfield, the Province of Alberta, this 21st day of June, on a motion by Deputy Mayor Tennant.

Third reading passed in open Council, assembled in the Town of Crossfield, the Province of Alberta, this day of 21st day of June on a motion by Mayor Anderson.



Mayor Nathan Anderson



**Chief Administrative Officer
Cheryl Skelly**

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1.0 INTRODUCTION

1.1 Purpose

The purpose of the Iron Landing Area Structure Plan (ASP) as outlined in this document, is to provide a comprehensive planning framework for the urban development of lands legally described as NE 35-28-1 W5M (refer to **Figure 1 – Location and Policy Context**). This Plan has been prepared in accordance with:

- Part 17 of the Municipal Government Act (2000);
- Provincial Land Use Framework;
- Calgary Metropolitan Plan (2010);
- Crossfield Sustainability Plan (2009); and,
- Town of Crossfield Municipal Development Plan Bylaw 2010-10 (2010).

1.2 Plan Area and Implementation

The Iron Landing ASP is located on the north boundary of the Town of Crossfield as part of the newly annexed lands that expanded the Town boundaries. The Iron Landing ASP includes approximately 98.62 acres (39.91 hectares) of land - refer to **Figure 2 - Location (Aerial Photo)**.

The Plan Area is owned by one (1) landowner and development will occur on a phased basis over time. The Iron Landing ASP outlines policy direction for urban development and ensures the Plan Area will be comprehensively planned.

1.3 Conformity with Approved Policies

The Iron Landing ASP was prepared in accordance with the provincial requirements outlined in s.633 of the *Municipal Government Act* (MGA) (Statutes of Alberta, 1994, Chapter M-26.1), specifically:

633(1) *For the purpose of providing a framework for subsequent subdivision and development of an area of land, a council may, by bylaw, adopt an area structure plan.*

(2) *An area structure plan*
(a) *Must describe*

(i) *The sequence of development proposed for the area,*

(ii) *The land uses proposed for the area, either generally or with respect to specific parts of an area,*

(iii) *The density of population proposed for the area either generally or with respect to specific parts of the area, and*

(iv) *The general location of major transportation routes and public utilities,*

And

(b) *May contain any other matters the council considers necessary.*

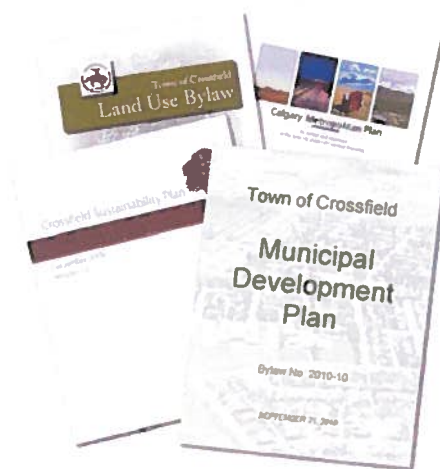
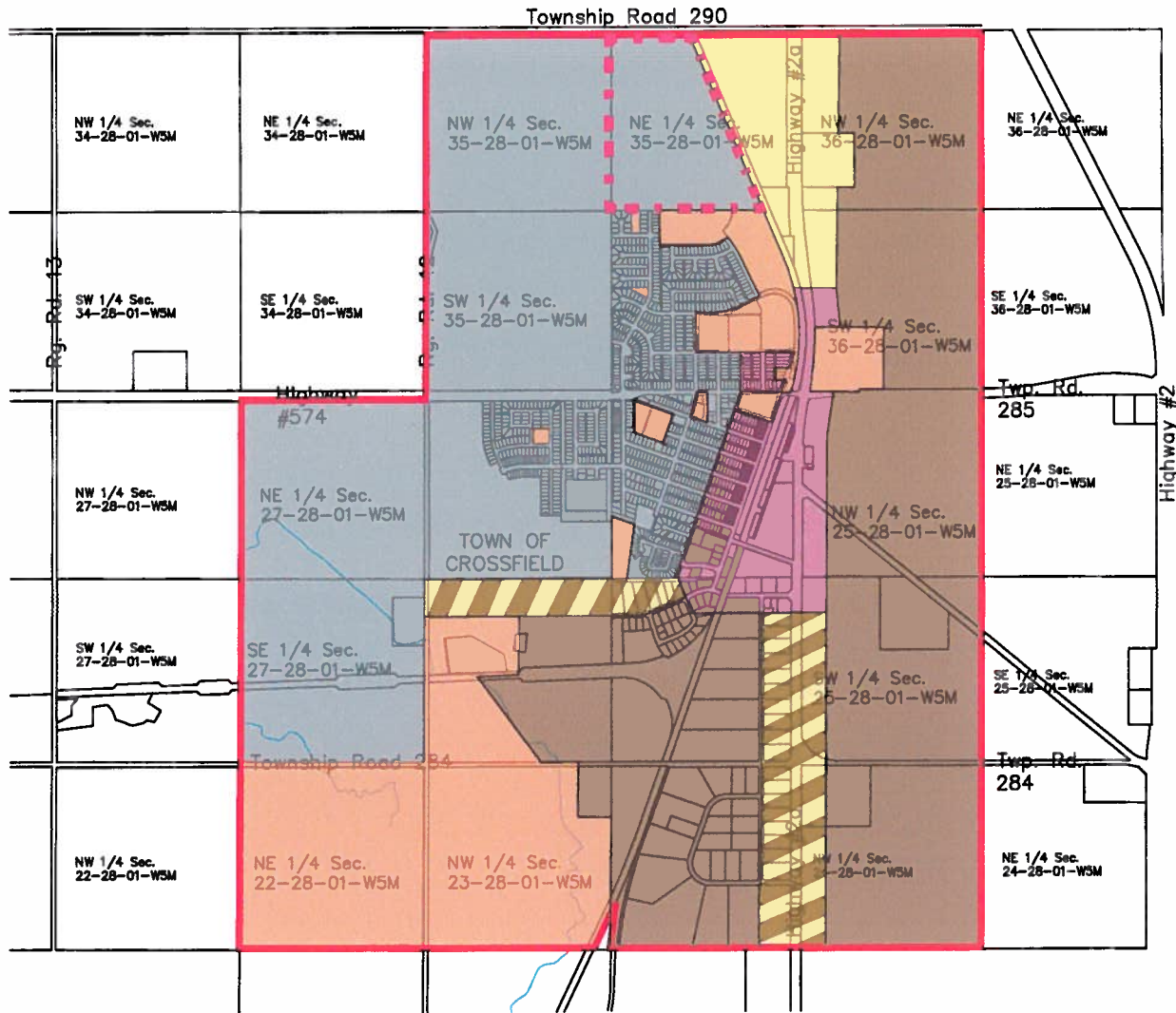




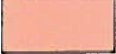
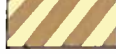





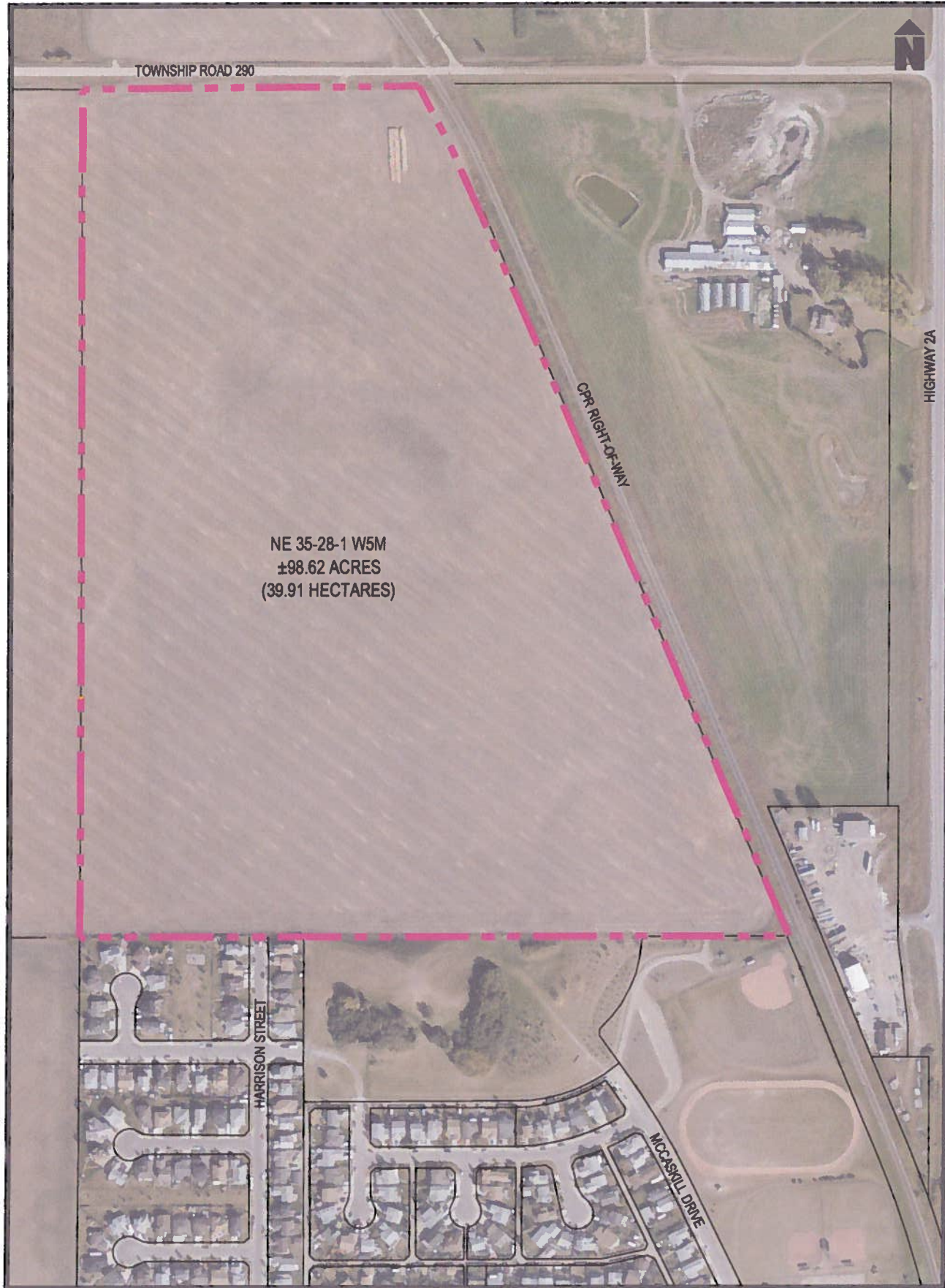
Figure 3
Land Use Policy Areas

----- Iron Landing ASP Boundary



- | | | | |
|---|---------------------------------------|--|---------------------------|
|  | Town of Crossfield Municipal Boundary |  | Commercial |
|  | Downtown and Entrance Area |  | Industrial |
|  | Municipal and Institutional |  | Commercial and Industrial |
|  | Residential | | |





LOCATION (AERIAL PHOTO)

FIGURE (2)

Additionally, the ASP was prepared in accordance with the Town of Crossfield’s Sustainability Plan, Municipal Development Plan, and Land Use Bylaw. The Town sought intermunicipal cooperation with Rocky View County and the Plan was evaluated against the Provincial Land-use Framework and Calgary Metropolitan Plan.

1.3.1 Provincial Land Use Framework

The Town of Crossfield is located within the South Saskatchewan Regional Plan area which is a planning region currently being addressed by the Province. To date, a profile of the South Saskatchewan Plan Area has been completed with the Terms of Reference for development outlined. The South Saskatchewan Regional Plan is currently being developed with a draft intended to be shared with the public in the Spring of 2011. The Plan will provide overarching guidelines regarding development in the area while ensuring the protection and sustainability of the environment.

1.3.2 Calgary Metropolitan Plan

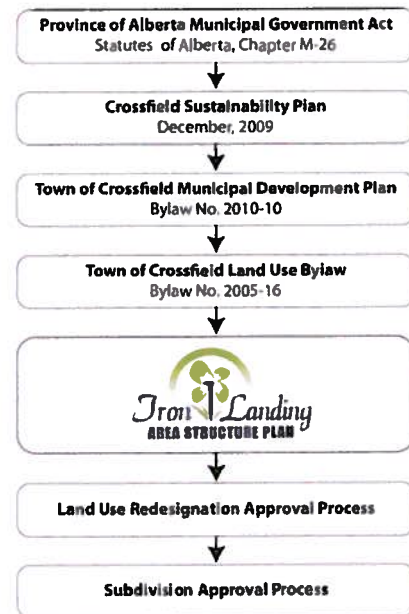
The Calgary Regional Partnership (CRP) includes the Town of Crossfield as part of the regional collaboration to solve and plan for growth through intermunicipal cooperation.

The CRP is in the process of implementing the Calgary Metropolitan Plan (CMP) (June, 2009) of which the Town is a participant. The Town is identified as a compact urban node and the CMP proposes bus rapid transit connecting the Town and the rest of the CRP municipalities. The Iron Landing project will assist the Town by meeting the density objectives of the CMP, providing a neighbourhood that offers a mixture of housing styles, local commercial shopping areas, and promotes walkability. This ASP provides Iron Landing an opportunity to evolve in density as the Town population continues to grow in a manner consistent with the Municipal Development Plan.

1.3.3 Crossfield Sustainability Plan

The Crossfield Sustainability Plan was approved on December 15, 2009 by Town Council. This Plan focuses on six (6) strategic areas where one could define success in implementing sustainable practices within the Town. Where possible, those strategic areas were included in the design of Iron Landing to support the Town in its goal to become, “...one of the most eco-friendly Towns in Alberta...”(pg.9). In particular Iron Landing provides:

- *Eco-Friendly Town* – the Iron Landing neighbourhood incorporates linear pathway connections within Iron Landing and to existing neighbourhoods to the south, as well as providing open space to the south to enlarge the existing green spaces within the Town.



- *Well Planned Town* – the design incorporates a mixture of housing styles, open space, flexible density opportunities, and pathways as well as a neighbourhood commercial site to promote walkability and connectivity.
- *Quality of Life* – Iron Landing adds to and compliments the Town’s community fabric by creating a neighbourhood that supports aging in place, outdoor activity, and corner store convenience all at a human scale, recognizing that, “some of us may move on, but we’ll always come back to Crossfield” (pg. 5).

1.3.4 Town of Crossfield Municipal Development Plan

The Town of Crossfield’s Municipal Development Plan (MDP) (Bylaw 2010-10) outlines the long-range plan for the Town in terms of land use planning, development, and provision of servicing infrastructure. This ASP generally conforms to the policies of the MDP. The ASP supports key MDP policy goals, through the following land use strategy and development objectives:

- *Environmental Stewardship and Sustainability* – the land use strategy establishes a short-block or modified-grid design to encourage a compact and walkable high-quality pedestrian environment. Further, the open space dedication strategy includes new regional pathway linkages and expands the existing major regional open space south of the Plan Area, and the overall open space dedication exceeds the minimum Municipal Reserve dedication and provides approximately twelve (12) percent of gross developable area as open/green space.
- *Economic Development* – the land use strategy protects and enhances the fiscal sustainability of the Town of Crossfield by fostering a major expansion of residential land uses and attracting new residents and local investment.
- *Land Use and Development* – the land use strategy seeks to achieve the MDP’s stated density targets, and is designed to be flexible and exceed those targets at the discretion of Council on a phased basis. The land use strategy provides for a mix of residential land uses and diversity of housing types, as well as neighbourhood commercial and a robust open space and pathway network. Further, the land use strategy is designed to support secondary suites in a variety of forms, including: suites contained within the primary dwelling (typically basement suites); rear-yard detached at-grade garden suites; and rear-yard detached above-garage suites. The opportunity for secondary suite development is realized through provision of some residential blocks which are accessible via laneways.
- *Transportation* – the land use strategy establishes a short-block or modified-grid design which provides for an interconnected mobility network, which supports both automobile use and pedestrian/cycling environment. The design of the mobility network is integrated with the existing Town transportation network, and also provides for thoughtful connections to Town lands that may develop in the future.
- *Housing* – the land use strategy provides a diversity of housing type and densities. The mix ensures that affordable (or attainable entry level) housing is provided to ensure that the Town’s identified ‘core (affordable housing) need’ is satisfied. The mix further ensures that a wide demographic spectrum is

considered in the housing types provided, specifically seniors-oriented or 'age-in-place' housing forms.

1.3.5 Intermunicipal Cooperation

As per the recently approved Municipal Development Plan, an Intermunicipal Development Plan (IDP) between the Town and Rocky View County is suggested to be initiated. In the meantime, the Iron Landing ASP would be subject to intermunicipal review as per Section 11.0 Intermunicipal Cooperation of the MDP. It is anticipated that the utilization of Township Road 290 in later stages of site development would be subject to review and coordination with Rocky View County.

2.0 DEVELOPMENT AREA

2.1 Location

The Iron Landing Area Structure Plan Area is located at the northern tip of the Town of Crossfield. It is bound on the north by Township Road 290 and the east by CP Rail. Access to the south is from the extension of Harrison Street. In addition a new south easterly connection is proposed by extension of McCaskill Drive to the site. The subject lands have been recently annexed into the Town in order to facilitate further growth - refer to **Figure 2 – Location (Aerial Photo)**.

2.2 Legal Description and Landownership

The Iron Landing Area Structure Plan Area includes +/-98.62 acres (+/-39.91 hectares) of land within one (1) quarter section: NE 35-28-01 W5M. The following table describes landownership within the ASP Plan Area at the time of Plan preparation.

Table 1 – Landownership Summary

Legal Description	Acres	Hectares	Landowner
Ptn. NE 35-28-01 W5M	+/-98.62	+/-39.91	La Terra Ventures et al.

2.3 Plan Area and Adjacent Land Uses

The Area Structure Plan Area is designated as Urban Reserve District (UR); the land is undeveloped as it was used in the past to support agricultural uses, primarily haying. The subject property is bordered on the north by Township Road 290 and additional agricultural lands within Rocky View County and on the south by residential development, Veterans Park and McCaskill Park. The Plan Area is bordered on the east by the Canadian Pacific Calgary – Edmonton Railway line and KDM Transport. The subject property is bordered on the west by vacant agricultural lands within the Town.

2.4 Physical Site Features

2.4.1 Topography and Drainage

The subject property is relatively flat and is primarily located on the north side slope of a hill and slopes toward the northeast. A small portion of the subject property crosses the ridge line, primarily in the central and eastern portions of the south boundary. Lands to the west are upgradient, also sloping to the northeast. The land to the south (i.e. SE-35-28-1-W5M) slopes toward the southeast. Lands to the north and east are down-gradient sloping away from the subject property (refer to **Figure 3 – Topography**).

2.4.2 Site Assessments

A number of pre-development site assessments have been completed in support of this Plan. Below is a summary of the assessments and their status.

2.4.2.1 Geotechnical

A Geotechnical Investigation Report was completed by Almor Testing Services Ltd. in May 2010. The findings from the report are summarized as follows:

- 15 test holes were drilled;
- Predominant soil is silty clay (till) deposit; and,
- The high level of silty clay (till) is favourable for the necessary grading conditions.

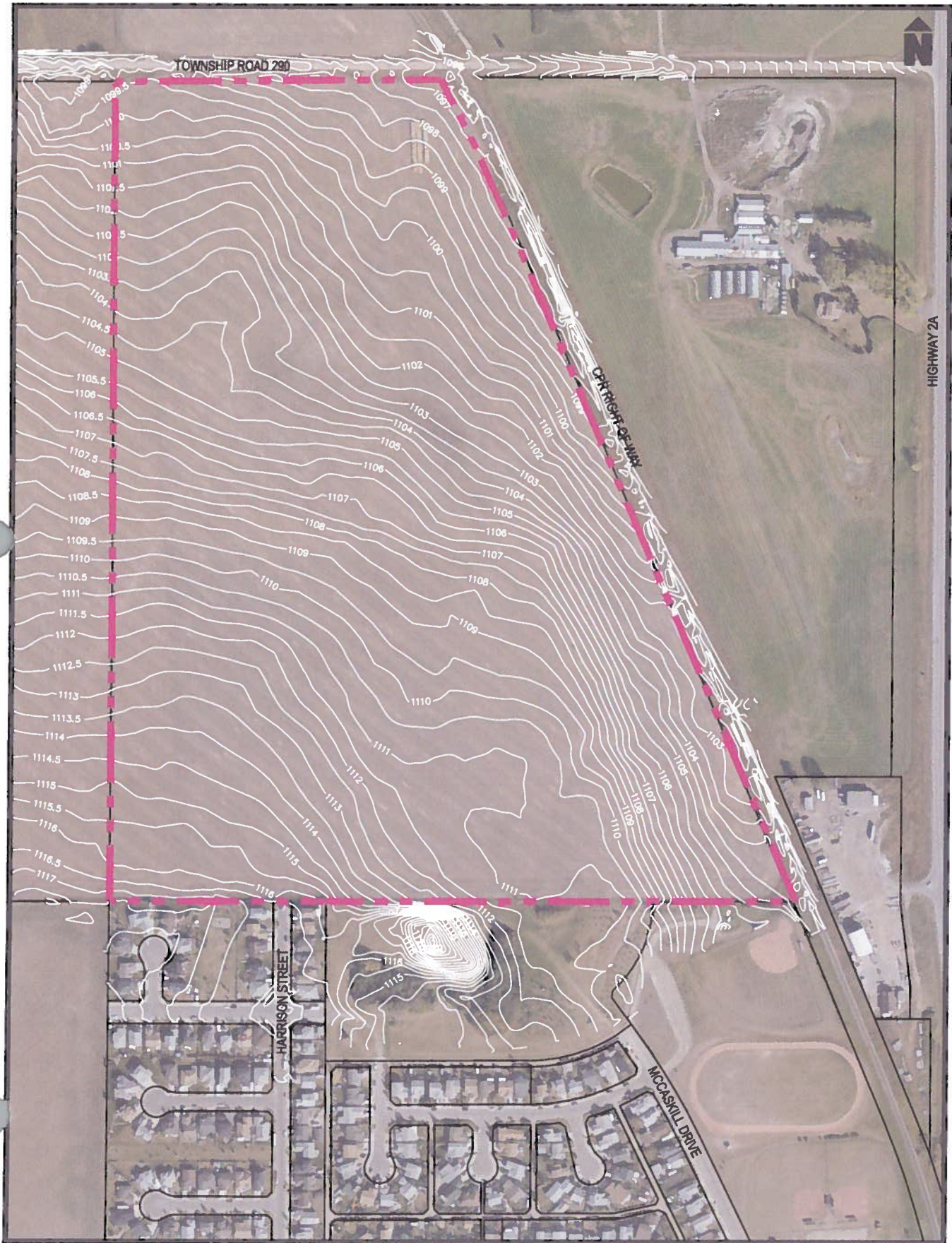
The report concluded that there are no significant constraints to development and site is favourable for the necessary grading. All recommendations provided within the Report will be adhered to at the time of development. A copy of the Report has been provided to the Town under separate cover.

2.4.2.2 Environmental Site Assessment

Phase One and Limited Phase Two Environmental Site Assessments (ESA) were carried out on the Plan Area by GTECH Earth Sciences Corporation. The purpose of the study was to assess the presence or non-presence of contamination and potential environmental hazards, past and present, in connection with a proposed residential development.

Five areas of environmental interest/concern were mitigated during the course of investigation and these are outlined in the report.

A substantial consideration was potential adverse environmental impacts to the subject property from a previous disposal field which is now located under the toboggan hill in Veterans Park, south of the Plan Area. Concerns over the past disposal field was mitigated in several ways. The location of the old pit is on topography that slopes away from the subject property. MacLaren Plan search data sheets revealed that there was no leachate, contact with a water table, surface water or odours from the disposal field. The data sheets also indicate the type of



TOPOGRAPHY

FIGURE (3)

waste had a low concern rating. A Limited Phase 2 ESA showed no detection of landfill methane gas in and around the test pits or from soil samples retrieved from varied depths below ground surface. As a result a setback waiver from the landfill was sought and approved (by the Town of Crossfield, Alberta Environment and Alberta Health Services) in February 2011.

A copy of the Phase One and Limited Phase Two Assessments has been provided to the Town under separate cover.

2.4.2.3 Historical Resources Assessment

The Iron Landing Plan Area has received Historical Resources Act Clearance from the Historic Resources Management Branch of Alberta Environment. A letter indicating this clearance has been provided to the Town under separate cover.

2.4.2.4 Man-Made Considerations

Possible oil and gas or industrial activity being conducted on or near the subject property was mitigated by other historical documentation reviewed. The Energy Resources Conservation Board (ERCB) indicated that there were no reported complaints, incidents, or environmental records pertaining to the subject property or surrounding lands. The ERCB had no records of oil or gas wells (past or present) on the north-half of 35-28-1-W5M. A pipeline base map provided by the ERCB indicated two (2) pipelines in the area. There is an abandoned or unused pipeline that barely crosses the NW corner of the Plan Area into the NW quarter section. A licensed pipeline exists on the NW quarter section, at considerable distance from the subject property. There was no evidence of surface leases or industrial operations on or near the subject property in the air photos. There were no records from Alberta Environment's Freedom of Information EPEA department. There are no residential setback considerations beyond the additional setback outside of the pipeline right of way given the content of the line.

3.0 LAND USE AND DEVELOPMENT STRATEGY

3.1 Plan Vision and Goals

Iron Landing is envisioned as a comprehensively planned and complete residential neighbourhood, which is integrated with, and is complementary to, the existing land uses within the Town of Crossfield. Iron Landing provides residents a walkable and compact neighbourhood design with a series of open space nodes and corridors, which tie pathway connections and green space to existing regional passive and active recreational amenities

The Iron Landing land use and development strategy is intended to provide cohesive policy framework for the phased and comprehensive development of the Plan Area. The framework includes detailed land use, subdivision, and development polices in accordance with Town of Crossfield policy.

3.2 Land Use and Design Principles

The Iron Landing land use strategy seeks to establish a complete neighbourhood that includes a healthy mix of residential land use types and densities. The strategy is also flexible, in terms of land use and density, such that the Plan Area may intensify on a phased basis according to Town's population increases over time, as per the MDP policies. The land use strategy's primary goal is to establish a neighbourhood which is well-integrated and complementary to the greater Town land use patterns, and that also provides: a range of housing choices (including entry-level housing); good access to open space and recreational amenities; and, neighbourhood-scaled goods and services in a mixed-use format (**Figure 4 – Land Use Strategy**).

In concert with the general land use strategy, key place-making design principles shall:

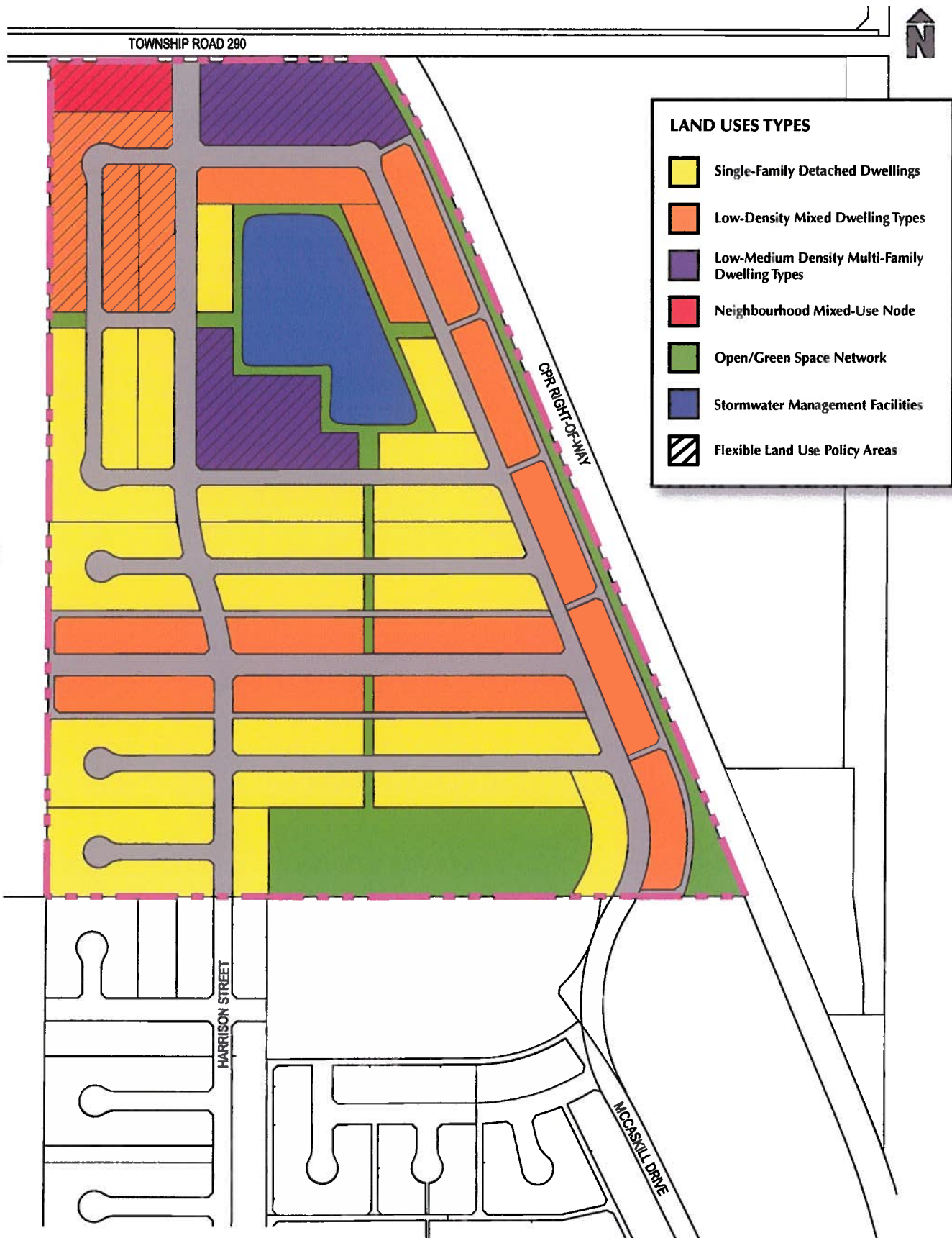
- a) Establish a short-block and modified-grid design to increase general connectivity and, specifically, to increase the walkability and quality of the pedestrian public realm;
- b) Provide a mix of residential land use types, specifically a variety of dwelling types and densities to create a diversity of housing choice;
- c) Establish a varied and vibrant built-form along streetscapes, by mixing residential land use types and integrating laneways and pathway connections within compact walkable blocks;
- d) Provide a neighbourhood-scaled mixed-use node that provides the opportunity for walkable access to goods and services, as well as integrated housing and formal public spaces; and,
- e) Create a green/open space network that includes strong pathway connections and is integrated with the stormwater management strategy, to both provide a servicing function and amenity.

3.3 Land Use Statistics

Table 2 – Land Uses Statistics

Land Use Category	Acres (+/-)	Hectares (+/-)	% of Total
Residential Land Uses			
Single-Family Detached Dwellings	30.49	12.34	30.9
Low-Density Mixed Dwelling Types	21.62	8.75	21.9
Low-Medium Density Multi-Family Dwelling Types	7.01	2.84	7.1
Neighbourhood Mixed-Use Node	1.39	0.56	1.4
Green/Open Space	11.84	4.79	12.0
Public Utility Lot (Stormwater Management Facility)	5.28	2.14	5.4
Road/Lane Right-of-Way	20.99	8.49	21.3
Total	98.62	39.91	100

Note: Areas referenced in table are approximate and are to be determined at the subdivision stage by a certified legal surveyor.



LAND USE STRATEGY

3.4 Population Projections and Densities

The recently commissioned 2010 Municipal Census for the Town of Crossfield highlights an increase in population to 2,861, from the 2005 Municipal Census which indicated a population of 2,603 - an approximately nine (9) percent increase.

The population projection for the Iron Landing Plan Area has been established using a base target density average of 6.0 dwelling units per gross acre. The Plan Area is 98.62 gross acres in area; therefore, the dwelling unit projection is estimated at 592, with an overall Plan Area population of 1,658 persons (based on average of 2.8 persons per dwelling unit, as outlined in Statistics Canada 2006 Census).

3.5 Integration with Existing and Future Development

Section 12.3.8 of the MDP requires that Area Structure Plans address, “*integration with existing and future development in a manner that ensures compatibility with neighbouring land uses*” (pg. 54). There are five (5) interface areas of significance to the Plan Area:

- 1) Interface with the existing Veteran’s Park (refer to Section 5.0);
- 2) Interface with existing residential areas and mobility network to the south;
- 3) Interface with future residential areas and mobility network to the west;
- 4) Interface with Rocky View County and agricultural lands to the north; and,
- 5) Interface with CPR right-of-way to the east (refer to Section 6.2).

The Plan Area’s open/green space and pathway network has been designed to be well integrated with existing regional open/green space. Reserve dedications and pathway connections are made to Veteran’s Park expanding the regional amenity and providing greater pedestrian connectivity for the benefit of existing and future Plan Area residents.

The Plan Area is well integrated with existing adjacent residential land uses. Single-family detached residential land uses are planned where similar existing uses are immediately adjacent and compatible block design has been established to create a seamless block pattern.

The mobility network is also well integrated with the existing network. In order to reduce the collector traffic burden on Harrison Street as a single point of entry, an extension of McCaskill Drive is planned to split north-south collector traffic demand generated by the Plan Area. Also, two (2) potential east-west mobility network access points have been planned to facilitate good future connectivity to undeveloped lands west of the Plan Area. A formal collector standard road connection is planned and a second residential standard road dedication is provided should it be required in the future.

The lands north of the Plan Area, within Rocky View County, are currently agricultural and contain some oil and gas infrastructure. The future development of these lands is unclear given the potential alignment of significant electrical transmission line upgrades. It is important that as the Plan Area development progresses that Rocky View County and the Town of Crossfield continue to discuss the interface issues and jurisdictional issues at the intermunicipal level as outlined in Section 11.3.7 and 11.3.8 of the Town’s MDP to the benefit of both jurisdictions.

Policy 3.5.1 In accordance with Section 12.3.8 of the Town of Crossfield Municipal Development Plan, the Iron Landing Area Structure Plan land use strategy

(Figure 4 – Land Use Strategy) addresses interface conditions and provides compatible residential, mobility network, and open/green space integration that is responsive to existing interface conditions. These should be evaluated by the Town of Crossfield for their effectiveness and implemented by the Developer.

Policy 3.5.2 In accordance with Section 11.3.7 and 11.3.8 of the Town of Crossfield Municipal Development Plan, continued dialogue with Rocky View County shall occur on issues affecting common municipal boundaries. Rocky View County shall be consulted by the Town of Crossfield, as development occurs on a phased basis, as outlined in this Area Structure Plan.

3.6 Detailed Land Use Policy Areas

The following outlines several detailed land use policy areas within the Plan Area. Each policy area describes a type of land use and associated dwelling type and/or built-form envisioned. Each policy area(s) shall be implemented on a phased-basis and shall be consistent with the detailed intent of the Town of Crossfield Land Use Bylaw. The detailed land use strategy aligns with the Town's MDP (Section 5.4.3), which envisions a sliding scale of allowable density thresholds, which are based on the Town's population at the time a development phase is implemented.

3.6.1 Single-Family Detached Dwellings

This land use policy area allows for family-oriented single-family detached dwellings. Lot width will vary, but widths will typically provide for more generous building footprints and private amenity areas. Lots often back onto open/green space and/or are oriented within a cul-de-sac. Dwelling types primarily consist of front-attached garages, but in some locations can provide for rear detached garages through laneways. Shared front driveways are encouraged where feasible, as a minimum landscaped frontage of fifty-percent is encouraged for all lots. Built-form will consist of a variety of residential façade types and garage façades should be recessed from the residential façade.

3.6.2 Low-Density Mixed Dwelling Types

This land use policy area allows for a range of dwelling types, including: single-family detached homes, semi-detached (duplex), and triplex-style dwellings. The dwelling(s) built-form is envisioned as low-profile (one to three stories). Lots or development blocks are primarily accessible via a paved rear lane, which allows for rear-detached garages. Laneway orientation also allows for the development of secondary suites above-garage and/or opportunities for home-based businesses detached from the primary dwelling space.

3.6.3 Low-Medium Density Multi-Family Dwelling Types

This land use policy area allows for a mix of low to medium density multi-family dwelling types, including: semi-detached (duplex), attached (townhouses and stacked townhouses), and multi-storey apartment-style dwellings. The dwelling(s) built-form is envisioned as medium profile (two to four stories). These land use policy areas are

organized into larger development blocks, facilitating condominium type development standards and internal access networks.

3.6.4 Neighbourhood Mixed-Use Node

This land use policy area primarily allows for a small-scale local convenience area offering retail-commercial goods and services for residents within the surrounding neighbourhood(s). The intent is to provide the residents of the Iron Landing neighbourhood, and future adjacent neighbourhoods, with support retail-commercial land uses to ensure a complete neighbourhood that provides, at a minimum, the basic goods and services required and within a convenient and walkable environment. The land use policy area is also intended to provide the opportunity for a mixed use land use development format, where residential uses can be created above-grade and modest public gathering spaces can also be established. The mixing of land uses provides an opportunity for a more vibrant and active neighbourhood node.

3.6.5 Flexible Land Use Policy Areas

These land use policy areas are intended to be generally consistent with their identified applicable detailed land use policy area, however, they may be considered as flexible land use areas to accommodate increased density and/or a varied land use strategy, on a phased basis, and in accordance with MDP policies. These flexible land use areas meet the specific policy intent of the MDP, which envisions incremental density increases in new growth, as the Town's population increases and meets specified thresholds. Revisions to land use and allowable densities in these policy areas shall be at the discretion of Council and may occur without amendment to this Plan.

To ensure consistent and comprehensive phased development, the following detailed land use policies shall apply to the Plan Area:

- Policy 3.6.5.1 Development of the Plan Area consistent shall be consistent with the land use strategy as per Figure 4 – Land Use Strategy, recognizing that this ASP is intended to outline a general land use and development strategy, which may be subject to minor change at the Land Use Redesignation and Subdivision stage.*
- Policy 3.6.5.2 Flexible land use policy areas shall be reviewed at the discretion of Council at the appropriate stage. Land use and density variances to these areas may occur without amendment to this Plan at the discretion of Council.*
- Policy 3.6.5.3 The overall residential use strategy is flexible and designed to achieve an average density ranging from six (6) to eight (8) units per gross acre, which shall be determined on a phased basis at the discretion of Council.*
- Policy 3.6.5.4 Residential land use areas shall include a range of single-family detached, semi-detached, attached, and multi-family dwelling types.*

- Policy 3.6.5.5 In accordance with the Town of Crossfield Municipal Development Plan policy 5.6.4, single-family detached housing may be the predominate form of residential units, but lot widths shall vary to accommodate varied housing typology, built-form, and access, including lane relationships. No more than half of the total number of dwellings units shall be designated within the same residential land use district.*
- Policy 3.6.5.6 Residential land use areas may allow for prefabricated dwellings described as a dwelling unit, all or part of which is constructed off-site but is placed on a permanent foundation. A prefabricated dwelling is factory-built and may be incorporated with or attached to similar prefabricated dwelling units at a development site.*
- Policy 3.6.5.7 The Plan Area shall include green/open space areas throughout, and these areas shall be both passive and actively programmed.*
- Policy 3.6.5.8 Development shall provide a comprehensive and interconnected network of pedestrian sidewalks and pathways, and encourage the continuity of streets within the community to provide good connectivity, and safe pedestrian and vehicle movements.*
- Policy 3.6.5.9 Architectural Controls shall be established that contain unifying elements in order to create a cohesive and aesthetically complementary neighbourhood.*

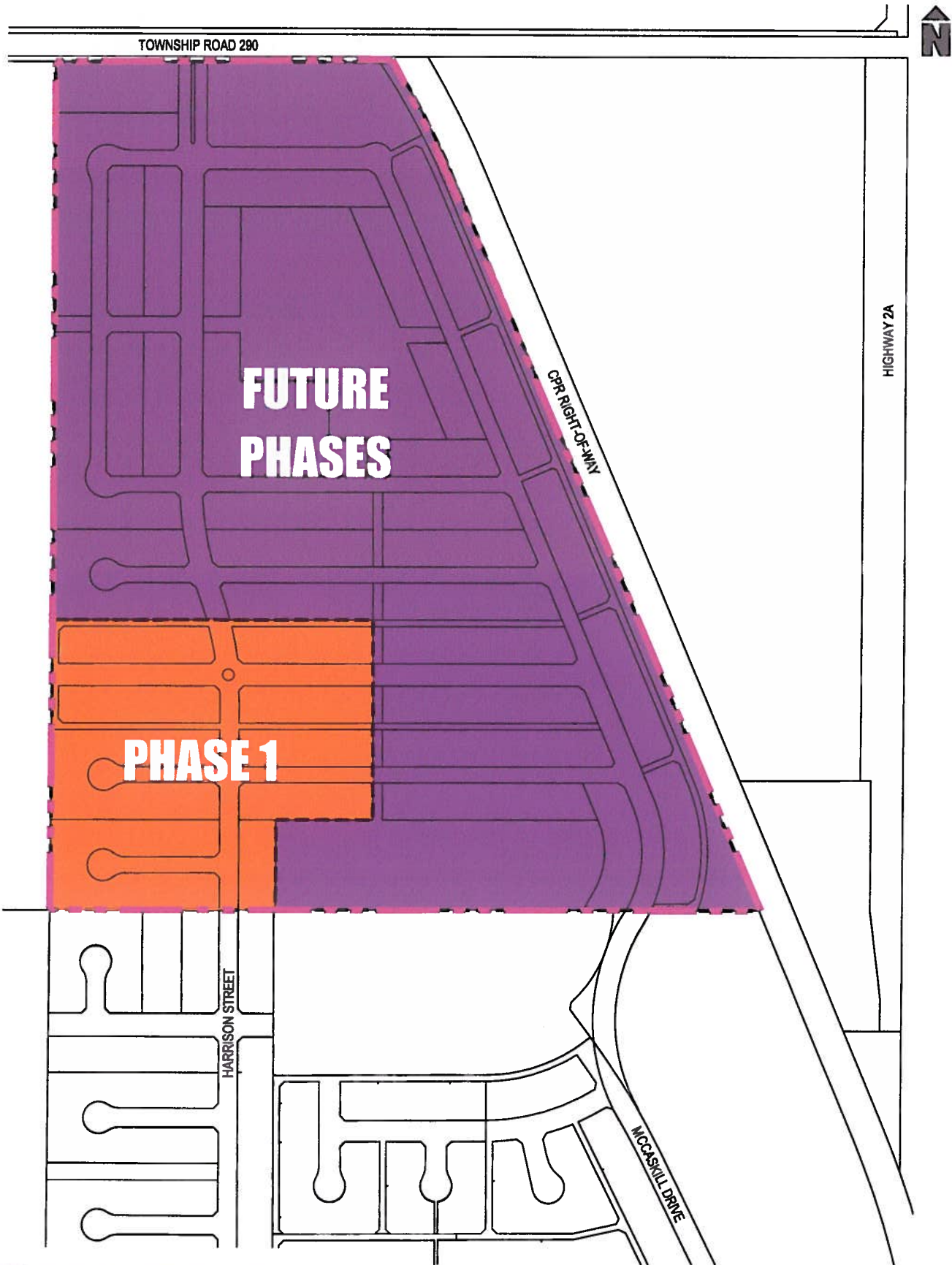
3.7 Phasing

The first phase proposed for Iron Landing shall be located in the southwest corner of the Plan Area and is based on logical servicing infrastructure extensions and system capacities (refer to **Figure 5 – Phasing Strategy**). Subsequent phasing shall occur based on logical servicing extension, transportation improvements, and market conditions. Phases could occur simultaneously without amendment to this plan. It is anticipated that the extension to McCaskill Drive would occur in the second or third development phase.

- Policy 3.7.1 The Plan Area shall be developed comprehensively in accordance with a phasing strategy. The timing of development in any phase shall be at discretion of the landowner and may include breaking phases down further or, conversely, simultaneous development of phases. This may occur without further amendment to this Plan.*

4.0 DEVELOPMENT STANDARDS

Iron Landing development standards and Architectural Controls will be utilized at the Development Permit stage to ensure that all new site development will be compatible with a comprehensive development strategy.



4.1 Architectural Controls

A general design theme, reflective of the vision and goals of Iron Landing, will be established through Architectural Controls. Specific attention will be paid to materials, colours, and architectural detailing. The Architectural Controls will primarily serve to establish high-quality front facade treatments, create unified streetscapes, and allow for compatible variation in built-form. A unified general design theme serves to create a strong sense of place and establish a sense of pride in ownership for the neighbourhood of Iron Landing.

Policy 4.1.1 The Iron Landing Architectural Controls shall inform quality in the built environment and include controls of materials, colours, and architectural detailing of dwellings and guide compatible variation of built-form to create unified streetscapes.

5.0 OPEN SPACE, PATHWAYS, AND RESERVE DEDICATION

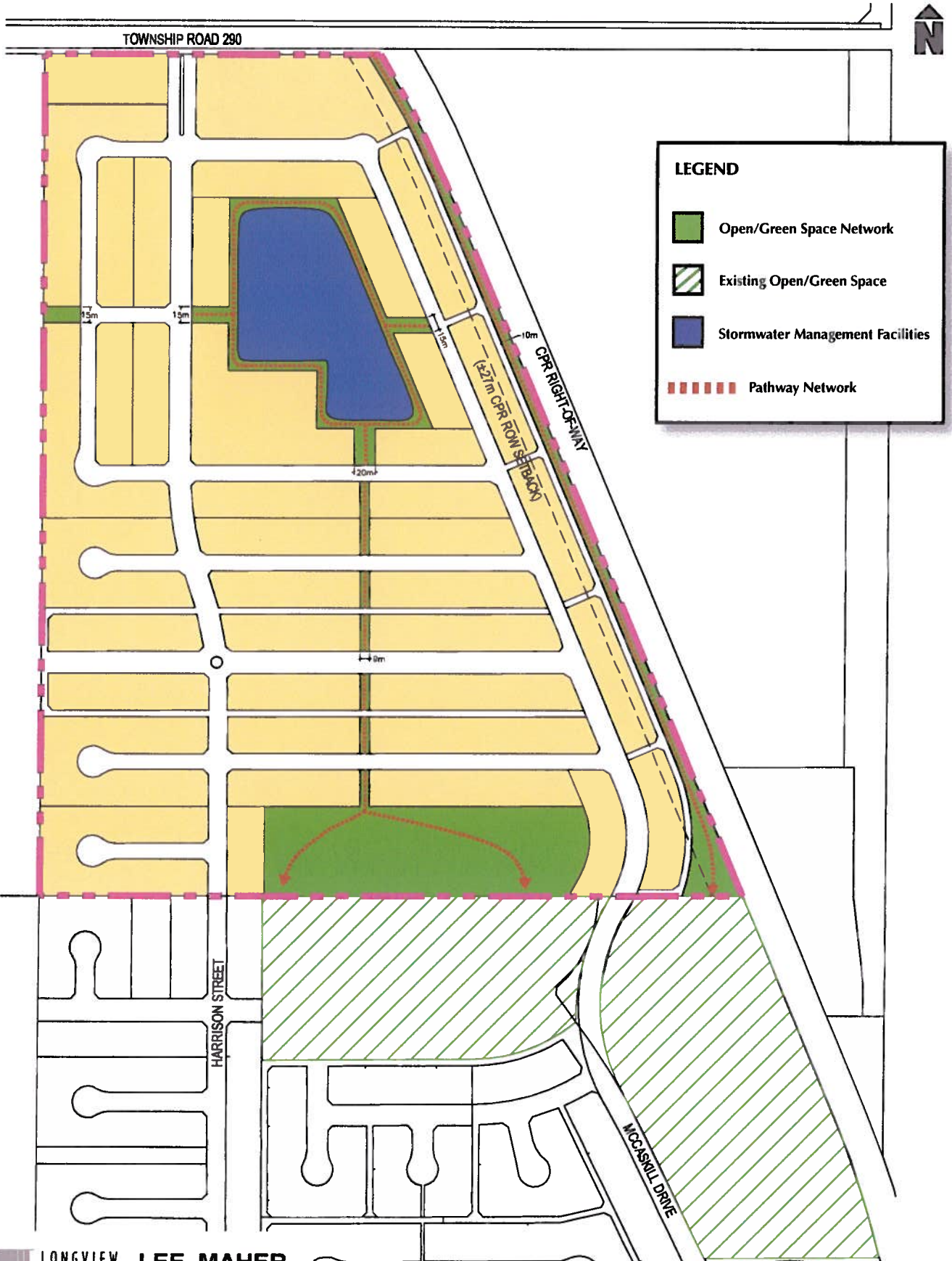
The Plan Area consists of comprehensive and interconnected open/green space network (refer to **Figure 6 – Open Space Network**). The network includes Municipal Reserve (MR) dedications of both green nodes and linear parkways, envisioned as both passive and actively programmed. The overall open/green space network is designed to be well-connected with pedestrian sidewalks and pathways to create a high-quality walkable pedestrian public realm. A continuous pathway along the entire eastern boundary of the Plan Area is intended to create seamless connectivity through the Plan Area and establish a major regional pathway segment for the greater Town.

Integral to the green/open space network is a major stormwater wet pond facility, which serves to incorporate the natural landscape into an urban environment and provide a central amenity for the neighbourhood. The largest dedication of open/space is strategically located along the southern boundary of the Plan Area to facilitate an expansion of Veteran's Park and the Town's regional green/open space amenity. There are no lands within the Plan Area that qualify as Environmental Reserve.

5.1 Municipal Reserve (MR)

The *Municipal Government Act* (MGA) requires the municipality to ensure landowners/developers allocate and dedicate up to 10% of land being subdivided for the purposes of providing public parks, school, or recreational facilities. The park nodes and liner parkways are to be considered part of the physical land dedication and are to be credited toward overall MR dedication (refer to **Figure 6 – Open Space Network**). It is anticipated that a total of +/- 11.84 acres (+/- 4.79 hectares) of MR will be dedicated which is approximately 12.0% of the gross developable area.

The Plan Area is acknowledged to be located within the jurisdiction of Rocky View Schools. No school site is contemplated as part of the Plan Area, given the one-time opportunity to expand Veteran's Park with a substantial MR dedication. It is anticipated that, if required, a future school site would be determined at the appropriate time by Rocky View Schools. Administration with Rocky View Schools was consulted with regard to the Plan Area development and the potential impact it may have on school requirements.



LEGEND

- Open/Green Space Network
- Existing Open/Green Space
- Stormwater Management Facilities
- Pathway Network

OPEN SPACE NETWORK

FIGURE (6)

Policy 5.1.1 Municipal Reserve dedication is to be provided to the Town of Crossfield in accordance with Section 666 of the Municipal Government Act.

6.0 MOBILITY

The Iron Landing Plan Area provides a comprehensive and inter-connected mobility network (refer to **Figure 7 – Mobility Network**). The network design reflects short-block and modified-grid design principles, serving to create high-quality automobile and pedestrian connectivity. The roadway network reflects a hierarchy of road types that serve to effectively manage vehicle traffic volumes and access relationships required of the mixed residential land use strategy, specifically in terms of density and built form. The mobility network also establishes good connections to the established Town road network, future arterials, and future development areas.

A Traffic Impact Assessment (TIA) was prepared to determine the impact of development of these lands on existing and future intersections. The TIA was submitted to the Town of Crossfield under separate cover. Access to/from the site will be located at the north edge of the site along Township Road 290, and south of the site via both Harrison Street and McCaskill Drive.

Background Traffic Conditions

The Opening Day Background horizon volumes were developed based on the Interim horizon of the Transportation Master Plan. The capacity at the study intersections was reviewed and the following improvements are recommended without consideration of the proposed development:

- Signalization of the intersection of Highway 2A and Township Road 290.
- Signalization/Roundabout at the intersection of Railway Street/Limit Avenue.
- Paving/upgrade of Township Road 290 from Highway 2A to the western limit of Crossfield to at minimum a Collector roadway.

Post Development Traffic Conditions

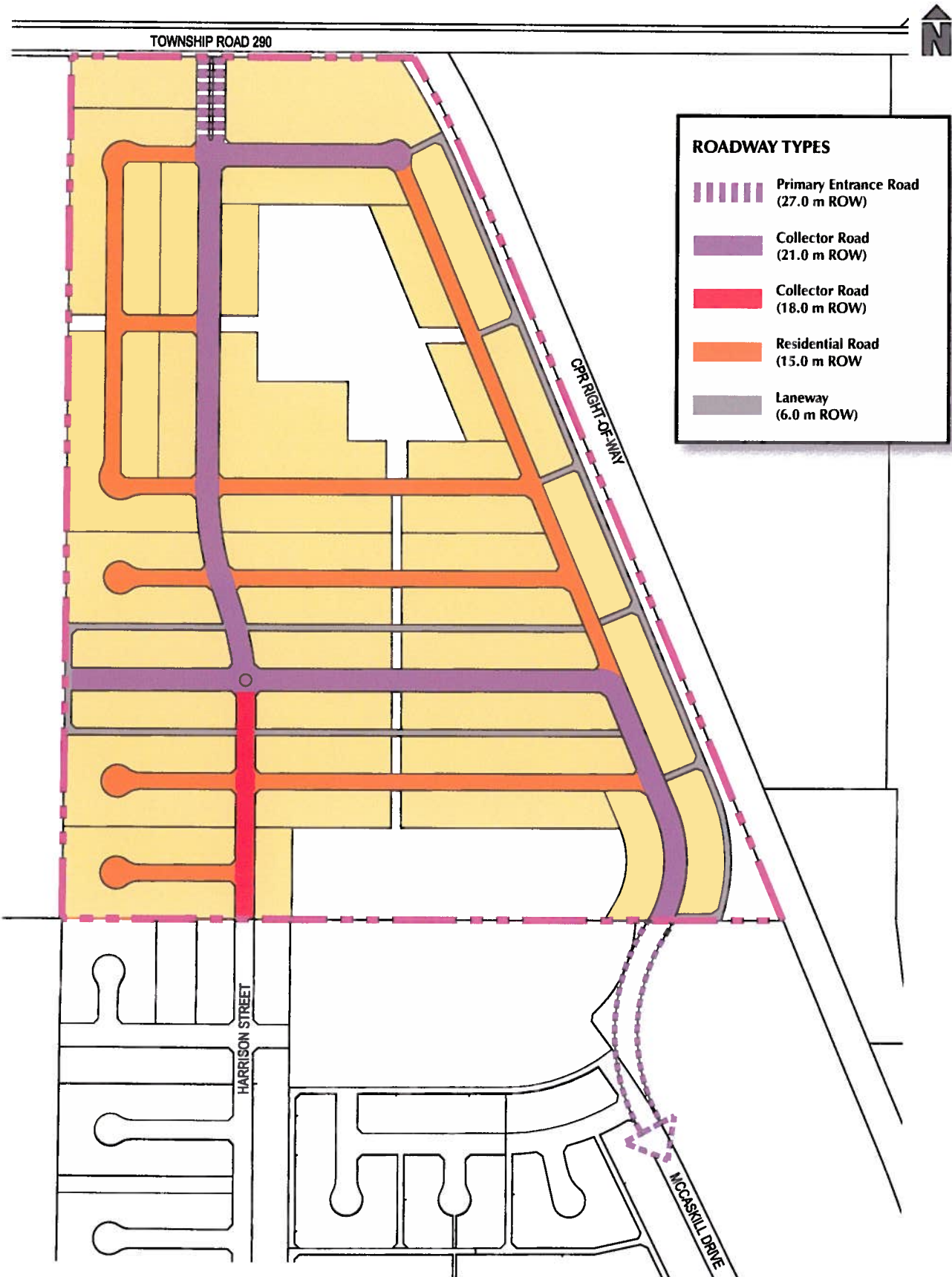
The initial phase of development (Phase 1) will include 103 single-family units, with an estimated three (3) year build-out of approximately 30 units per year. Based on the improvements recommended as part of the background horizon, all study area intersections are shown to operate within acceptable parameters and no additional improvements are required.

6.1 Road Network






Access to/from the site will be located at the north edge of the site along Township Road 290, and south of the site via both Harrison Street and McCaskill Drive. Township Road 290 is under the jurisdiction of Rocky View County.

Results from the Traffic Impact Assessment and the level of required improvements for the road network will be subject to review and agreement.

*Policy 6.1.1 Access to the Plan Area shall be generally in accordance with **Figure 7 – Mobility Network**.*



ROADWAY TYPES

	Primary Entrance Road (27.0 m ROW)
	Collector Road (21.0 m ROW)
	Collector Road (18.0 m ROW)
	Residential Road (15.0 m ROW)
	Laneway (6.0 m ROW)

MOBILITY NETWORK

FIGURE (7)

- Policy 6.1.2 The Plan Area both during and after full development will provide and maintain appropriate emergency vehicle access, to the satisfaction of the Town of Crossfield.*
- Policy 6.1.3 Complete road systems, in accordance with established development thresholds in Transportation Master Plan and the Iron Landing TIA, shall be constructed by the Developer to the satisfaction of the Town of Crossfield.*
- Policy 6.1.4 Cost sharing and/or Endeavours to Assist will be considered where oversized infrastructure is provided beyond what is required for the development, at the sole discretion of the Town of Crossfield to assign.*
- Policy 6.1.5 Upgrades or improvements to Township Road 290 require consultation with Rocky View County and shall be a standard deemed appropriate by Rocky View County.*

6.2 CPR Right-of-Way

In accordance with Section 12.3.8 of the MDP, an ASP must address the interface condition between development and highway and rail right-of-way. A CPR right-of-way exists paralleling the east boundary of the Plan Area. Mitigation measures with regard to noise and vibration are required when development is proposed in proximity to rail lines. Abutting the east boundary of the Plan Area a berm is proposed with an integrated regional pathway to attenuate noise. Also, the majority of the residential land uses adjacent to east boundary include a rear laneway. In addition, a setback of twenty-seven (27) metres is proposed from the edge of CPR right-of-way to residential buildings. Mitigation measures such as berms, landscaping, and fencing to ensure public safety shall be implemented in consultation with the Town of Crossfield.

- Policy 6.2.1 Rail right-of-way mitigation measures shall be evaluated by the Developer and the Town of Crossfield and the Proximity Guidelines and Best Practices report prepared for the Railway Association of Canada and the Federation of Canadian Municipalities (August, 2007) shall be utilized as a guideline.*
- Policy 6.2.2 Implementation of mitigation measures shall be completed by phase of development adjacent to the rail right-of-way and completed in accordance with direction from the Town of Crossfield at the appropriate development stage, at the Developer's expense.*

7.0 SERVICING AND UTILITIES

The development of municipal water, sanitary sewer, and storm sewers will be consistent with the Town's utility master plans and the utility servicing concepts.

All new development shall be serviced with municipal water and sanitary sewer.

- Policy 7.0.1 Endeavours to Assist to the Iron Landing Developer are anticipated and shall be assigned at the discretion of the Town of Crossfield.*

7.1 Potable Water Supply and Conservation

All water trunk lines will be located on approved Town line assignments and, for the most part, accommodated within the road right of ways (refer to **Figure 8 – Potable Water Strategy**).

Water line connections will be done in two stages. Stage 1 will have a tie in location at the north end of Harrison Street as the development is initiated. Stage 2 will have a secondary tie in location at the north end of McCaskill Drive. This stage will be completed as demand on the water system dictates.

Policy 7.1.1 The potable water distribution system shall be designed in accordance with the standards and specifications of the Town of Crossfield.

7.2 Sanitary Wastewater

To accommodate the development of this Plan Area, all sanitary main lines and force mains will be located on approved Town of Crossfield line assignments and for the most part, accommodated within the road right of ways.

To accommodate development for Iron Landing the sanitary system within the normal course of development will be accompanied with three (3) stages of development outside of the developments boundaries, refer to **Figure 9 – Sanitary Strategy (Stage 1)**, **Figure 10 – Sanitary (Stage 2)**, and **Figure 11 – Sanitary Strategy (Stage 3)**.

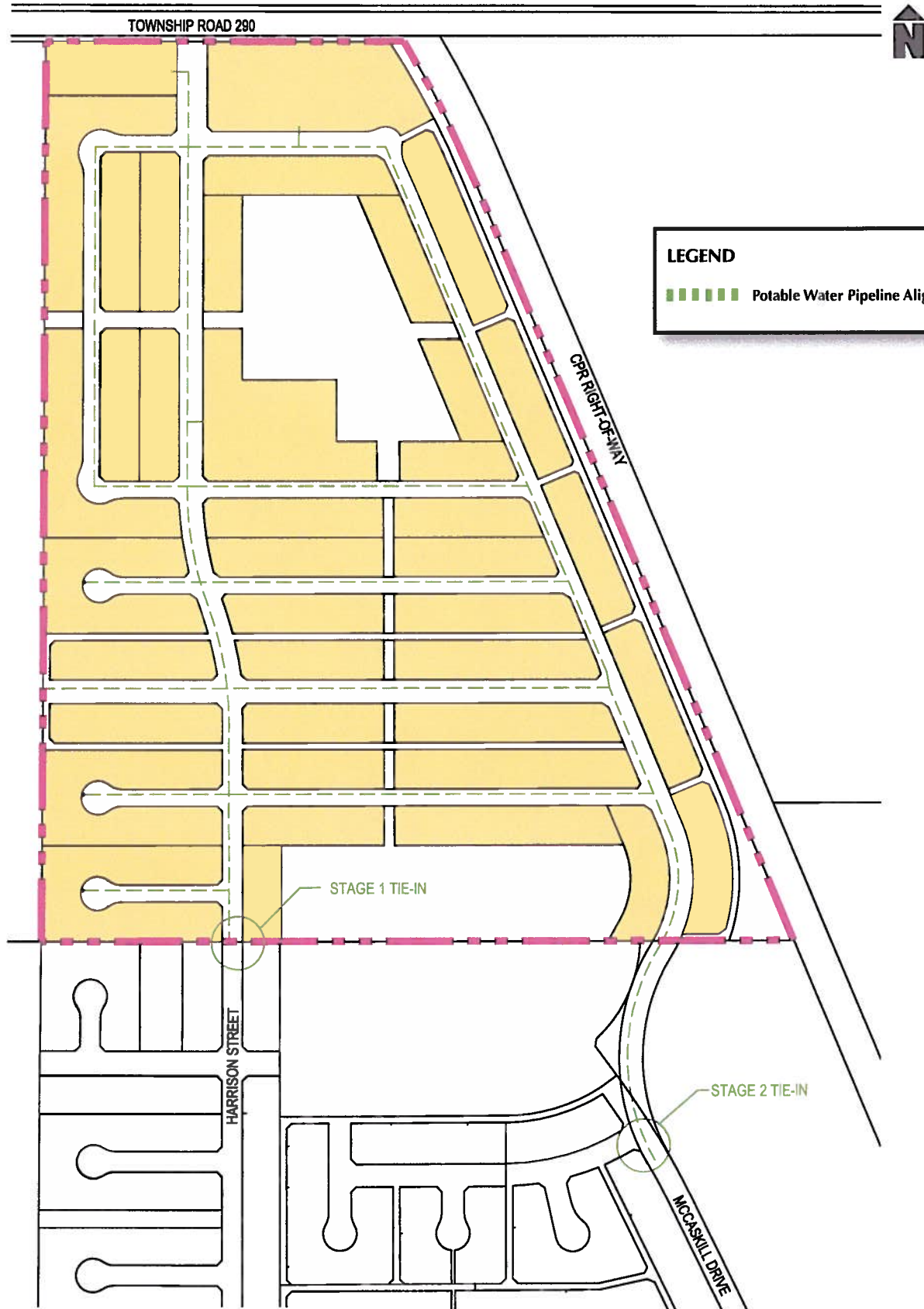
- Stage 1 will encompass an initial sanitary sewer tie in location at the north end of Harrison Street. In addition, as growth dictates, the twinning of the existing sewer main line near the existing treatment lagoons will be required.
- Stage 2 will encompass a new lift station which is to be located at the northeast area of the development. This new lift station will ultimately replace the Town's existing lift station and service the Town and the Plan Area. Gravity sewer flowing from the north end of McCaskill Drive will flow north into this new lift station. A forcemain will be installed from this new lift station and terminate into the existing Town's lift station located off the north end of McCaskill Drive.
- Stage 3 will encompass a new forcemain heading south along McCaskill Drive and terminating in an existing manhole on Railway Street. After the completion of this forcemain, the existing Town lift station off the north end of McCaskill Drive can be abandoned and the existing area around the lift station could be reclaimed.

Policy 7.2.1 The sanitary wastewater system shall be designed in accordance with the standards and specifications of the Town of Crossfield.

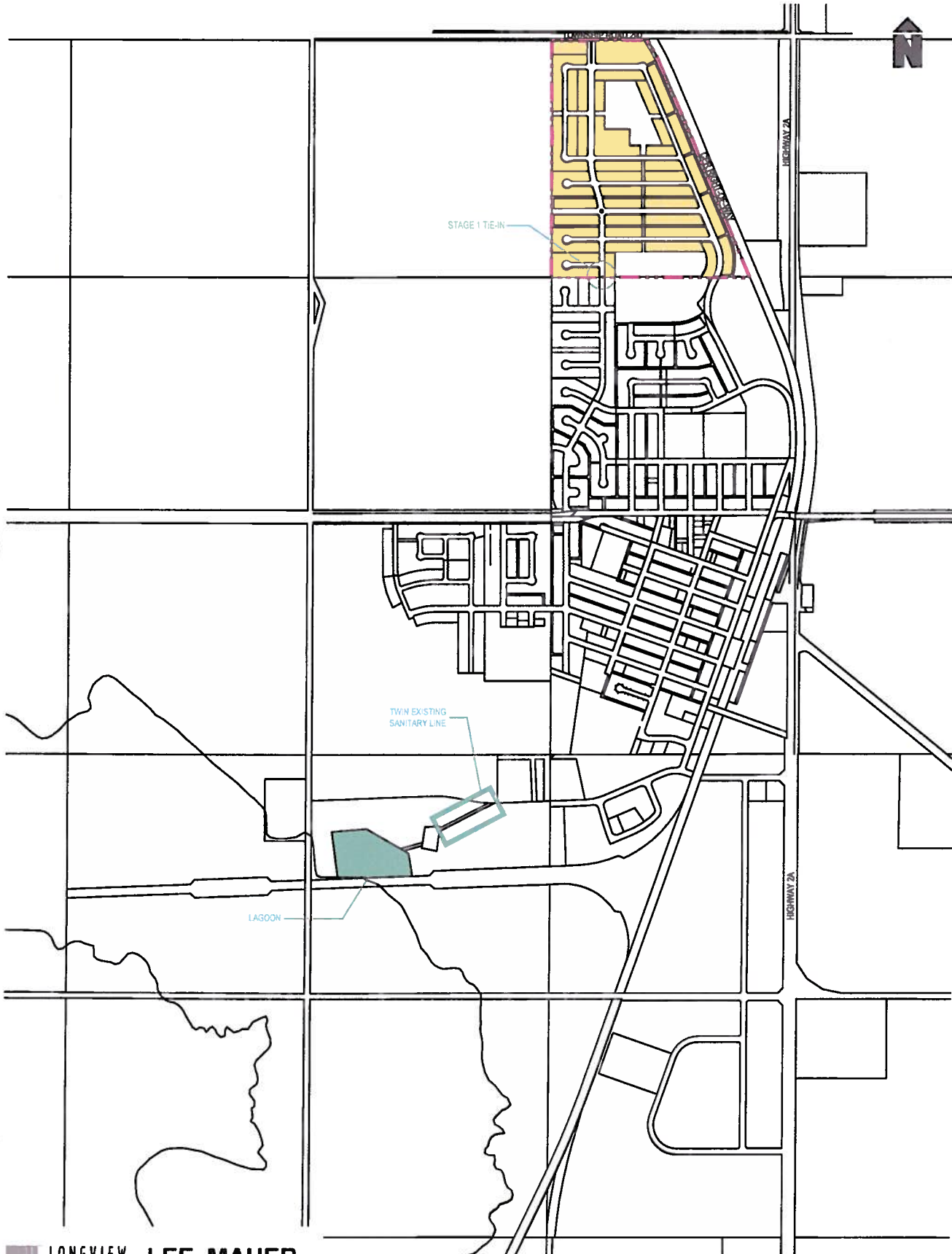
7.3 Stormwater Management

This section details the stormwater management strategy that includes the restriction of storm run-off from the Plan Area to pre-development flows in accordance with the Town of Crossfield and Alberta Environment requirements and standards.

The Plan Area is located within the identified north residential development area sub-catchment twelve (12). According to the Master Drainage Plan, this sub-catchment's undeveloped areas (currently the Plan Area) flow to the north east corner where they are

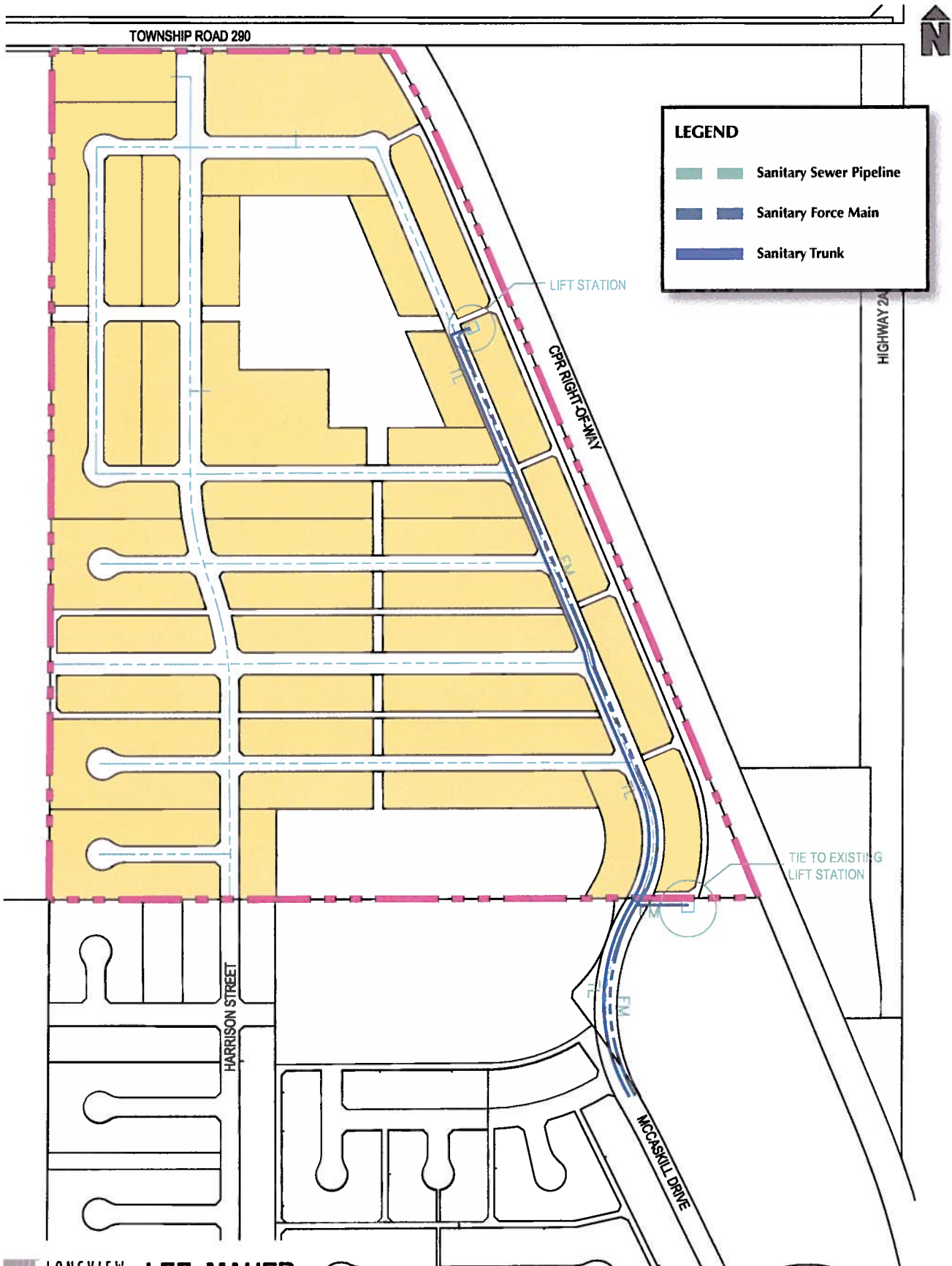


POTABLE WATER STRATEGY

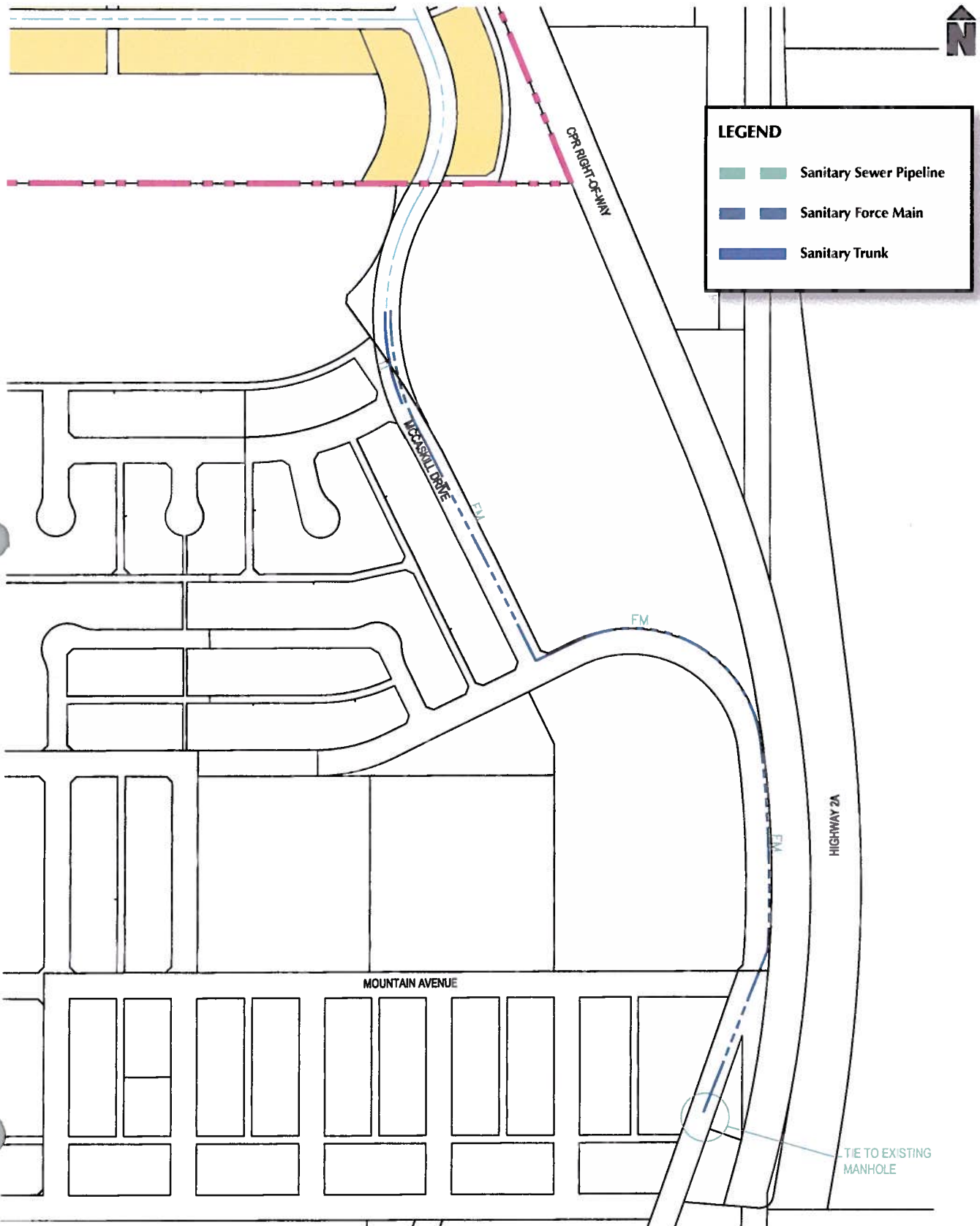


SANITARY STRATEGY (STAGE 1)

FIGURE (9)



SANITARY STRATEGY (STAGE 2)



SANITARY STRATEGY (STAGE 3)

allowed to pass under the CP rail tracks via an existing culvert. The Master Drainage Plan calls for a prescribed 1:100 year drainage rate (L/s) of 122.5.

A detailed Stormwater Management Plan is to be completed in conjunction with the detailed engineering drawings to confirm the discharge point and route eventually out falling into the coulee system north and east of Town (refer to **Figure 12 – Stormwater Strategy**).

Stormwater management is a critical consideration for the Town. A Master Stormwater Management Plan shall be prepared and submitted to the Town prior to development within the Plan Area. Subsequent detailed Stormwater Management Plans may be required by phase prior to the approval of land use redesignation or subdivision within the Plan Area.

Policy 7.3.1 The stormwater management strategy for the Plan Area shall be designed in accordance with the standards and specifications of the Town of Crossfield.

Policy 7.3.2 A stormwater management plan for the Iron Landing development shall be designed in accordance with standards and specifications of the Town of Crossfield and Alberta Environment and shall be prepared by Professional Engineer licensed to practice in the Province of Alberta.

Policy 7.3.3 A Master Stormwater Management Plan shall be prepared in accordance with the Town's Master Drainage Plan prior to the approval of Land Use Redesignation or Subdivision within the Plan Area.

Policy 7.3.4 Should it be deemed necessary, additional detailed Stormwater Management Plans by phase of development may be required at the discretion of the Town of Crossfield and prior to Land Use Redesignation or Subdivision of that phase.

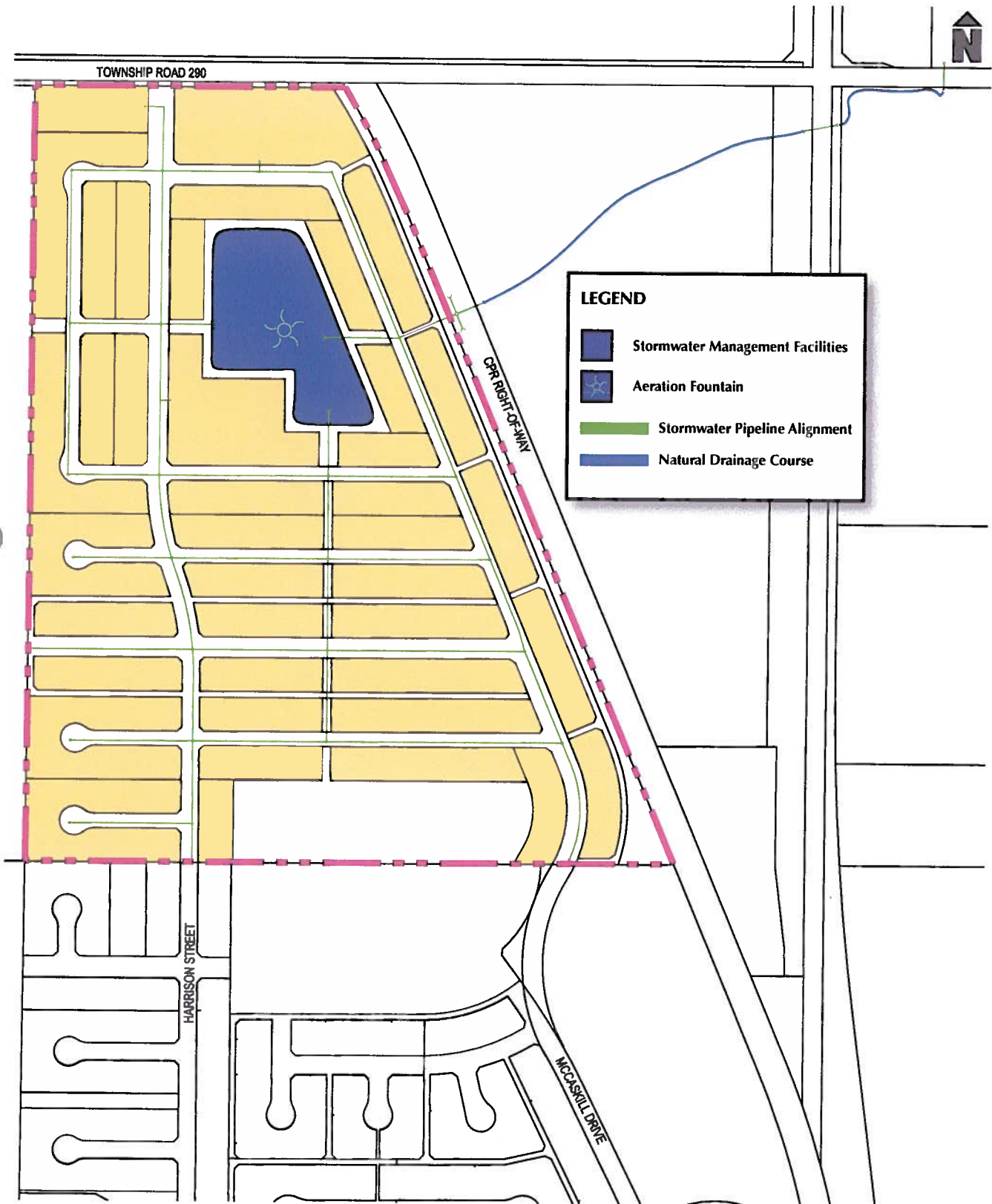
7.4 Shallow Utilities

Private utility companies will supply, install, and operate the following services: gas, power, telephone, and cable. These facilities will be installed pursuant to the Town of Crossfield Engineering Standards and Specifications.

Policy 7.4.1 Detailed design of the shallow utilities shall occur at the subdivision stage.

8.0 PUBLIC CONSULTATION

Two Public Open Houses in support of the Iron Landing Area Structure Plan were held on November 9, 2010 and (insert date) 2011. A summary of the Public Open Houses, advertising, and community feedback have been provided to the Town under separate cover.



STORMWATER STRATEGY

9.0 IMPLEMENTATION, REVIEW, AND AMENDMENT

9.1 ASP Implementation

The Iron Landing Area Structure Plan falls within a hierarchy of applicable plans. The Town of Crossfield's *Municipal Development Plan* (MDP) is the guiding document for all development within the municipality. The *Land Use Bylaw* (LUB) establishes the land use rules and regulations. The Iron Landing ASP presents a greater level of planning detail within the specific Plan Area and is required to be consistent with both the MDP and LUB. Development in the ASP should be acceptable to community and consistent with policy contained within this document. The Iron Landing Area Structure Plan does not supersede, repeal, replace or otherwise diminish any other statutory plan in effect in the Plan Area.

Policy 9.1.1 The policies contained within this document shall be reviewed and implemented by the Town of Crossfield at their discretion.

9.2 Plan Review and Amendment

As the Iron Landing Area Structure Plan is adopted by bylaw of the Municipality, a formal process as outlined in the *Municipal Government Act* is required to amend the Plan.